

FIG. 1a

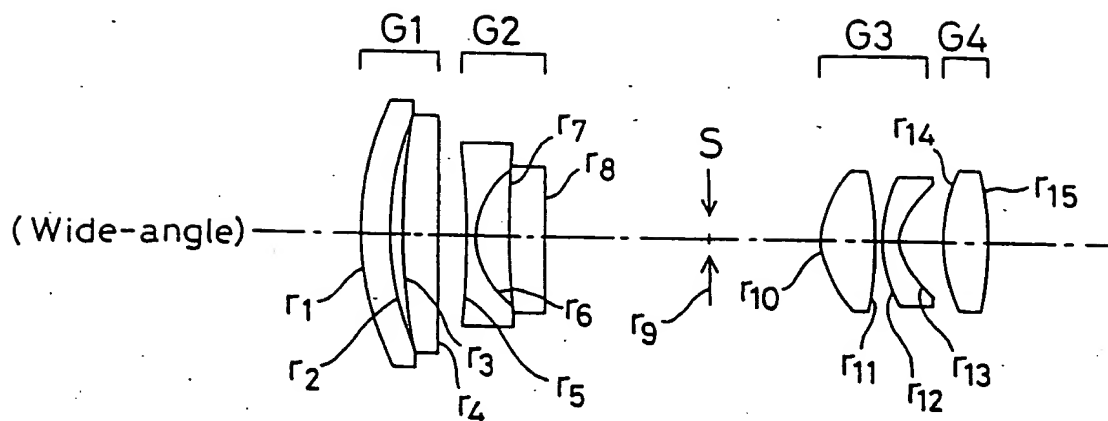


FIG. 1b

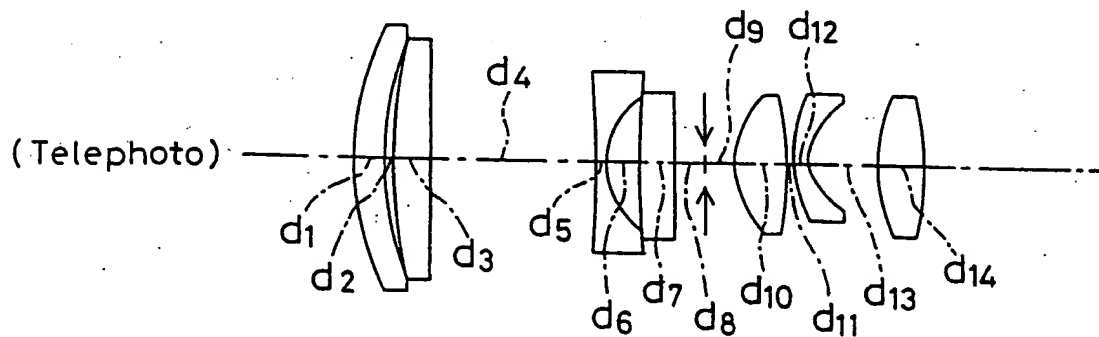


FIG. 2a

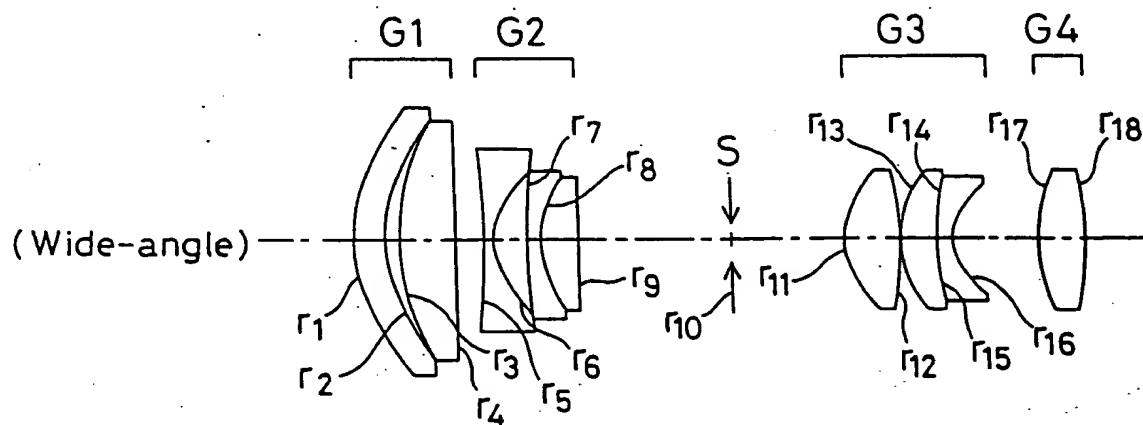


FIG. 2b

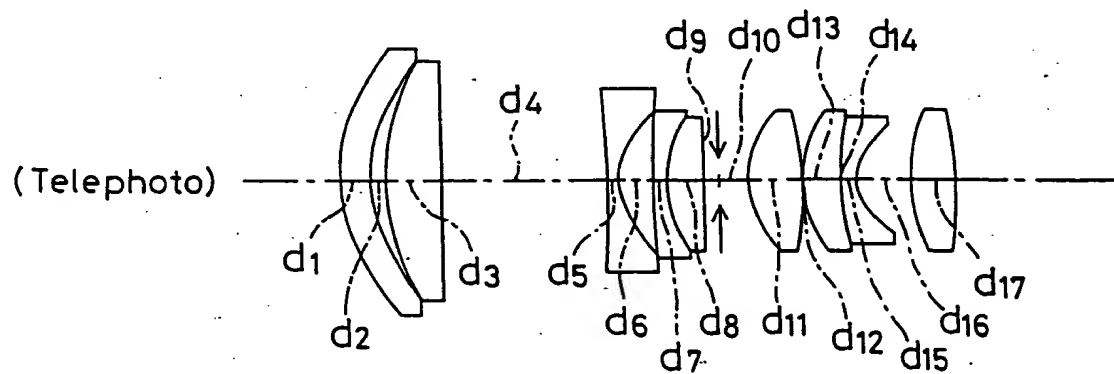


FIG. 3a

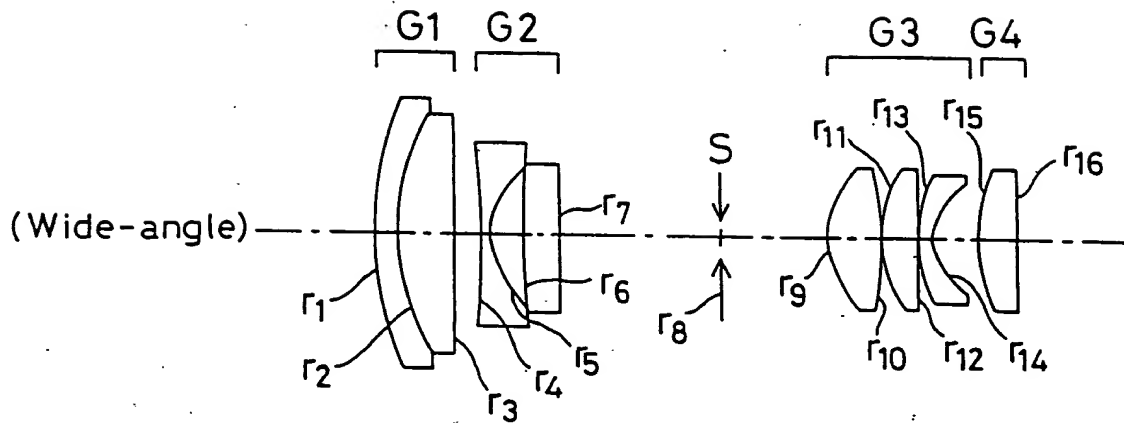


FIG. 3b

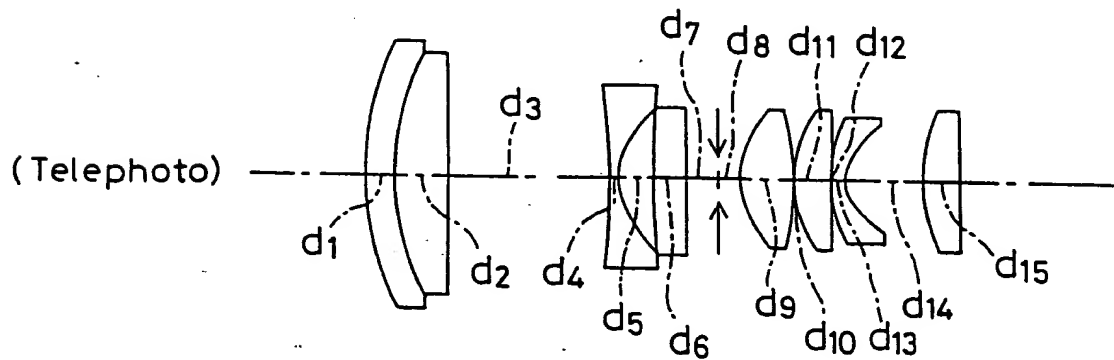


FIG. 4a

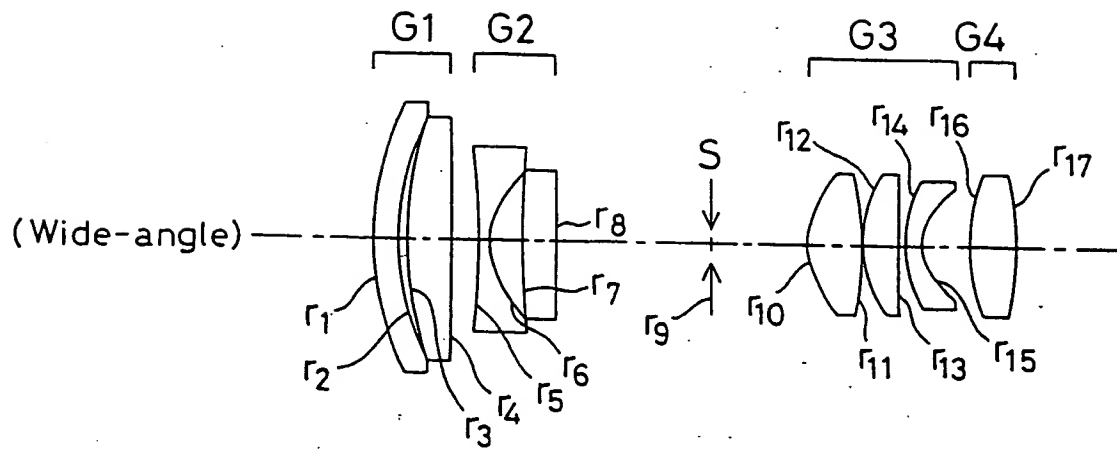
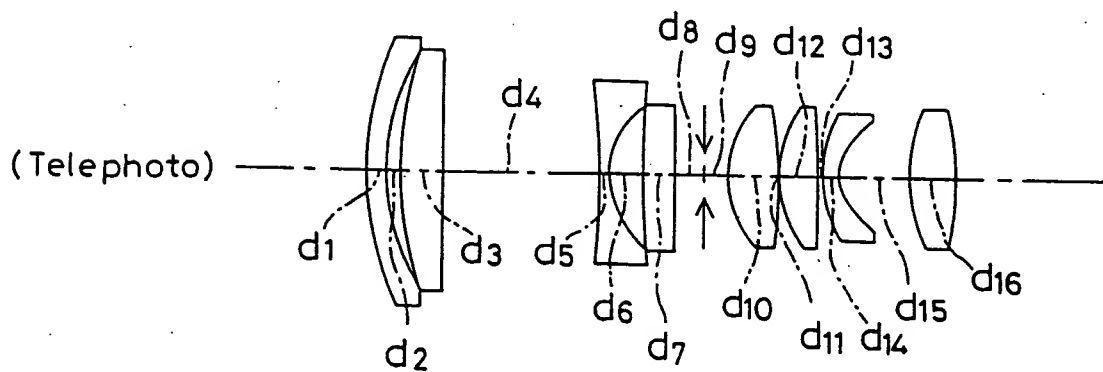


FIG. 4b



(Telephoto)

The diagram shows a series of 17 optical elements along a horizontal axis, labeled d1 through d17. The elements are arranged from left to right as follows: d1 (convex), d2 (concave), d3 (convex), d4 (convex), d5 (convex), d6 (convex), d7 (convex), d8 (convex), d9 (convex), d10 (convex), d11 (convex), d12 (convex), d13 (convex), d14 (convex), d15 (convex), d16 (convex), and d17 (convex). The elements are grouped into several sub-assemblies. The first sub-assembly consists of d1, d2, and d3. The second sub-assembly consists of d4, d5, d6, d7, d8, and d9. The third sub-assembly consists of d10, d11, d12, d13, d14, d15, d16, and d17. The elements are labeled with dashed lines pointing to their respective positions. The label (Telephoto) is placed to the left of the first element d1.

FIG. 6a

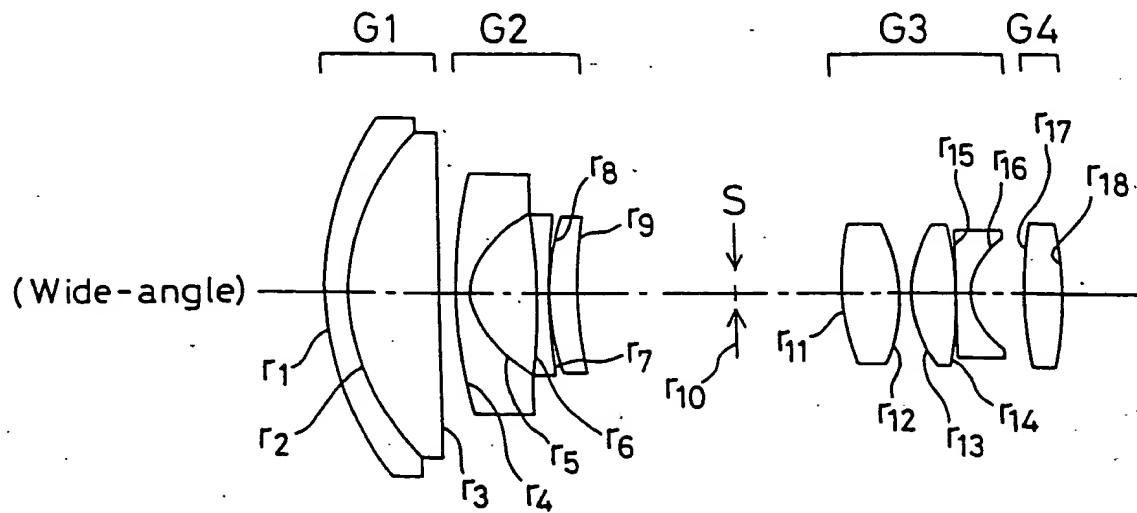
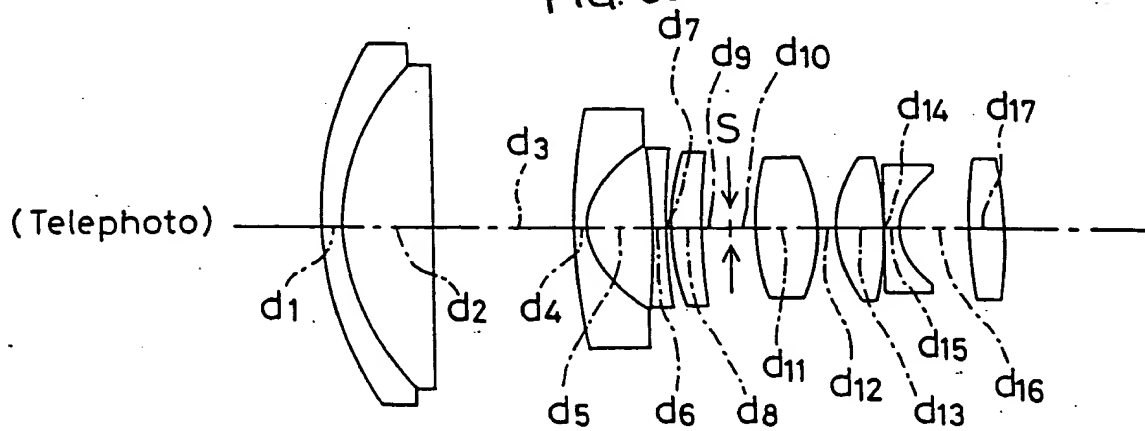


FIG. 6b



~~FIG. 28~~

FIG. 28a
FNO 4.217

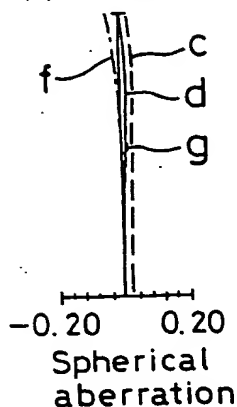


FIG. 28b
 $\omega = 12.0^\circ$

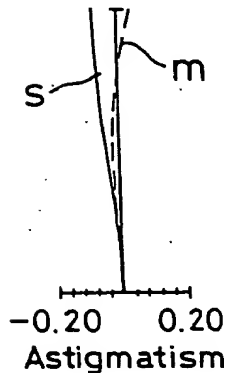


FIG. 28c
 $\omega = 12.0^\circ$

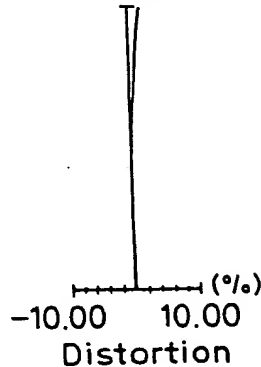
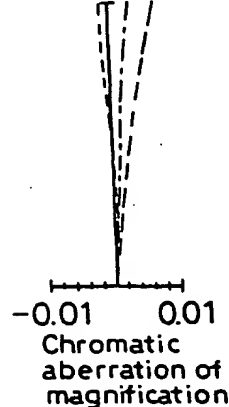


FIG. 28d
 $\omega = 12.0^\circ$



~~FIG. 29~~

FIG. 29a
FNO 3.391

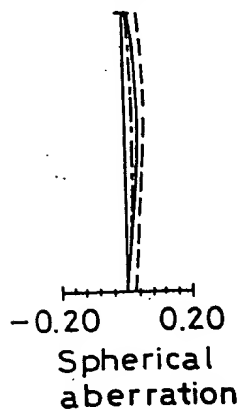


FIG. 29b
 $\omega = 19.6^\circ$

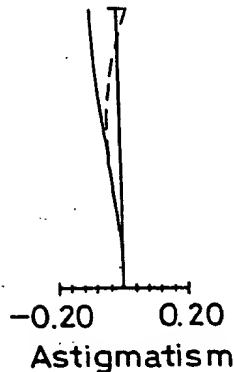


FIG. 29c
 $\omega = 19.6^\circ$

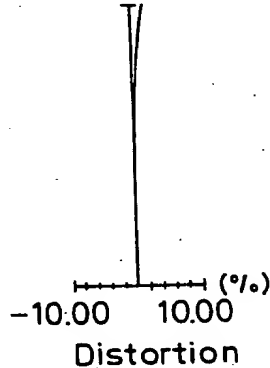
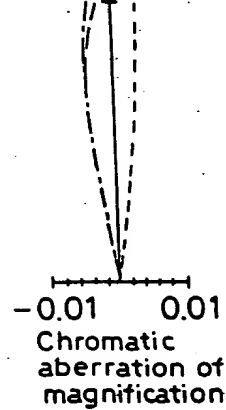


FIG. 29d
 $\omega = 19.6^\circ$



~~FIG. 30~~

FIG. 30a
FNO 2.787

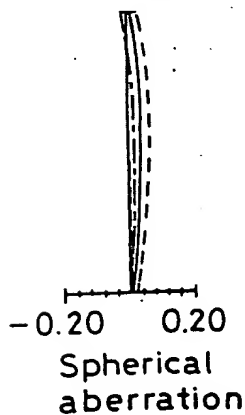


FIG. 30b
 $W = 31.7^\circ$

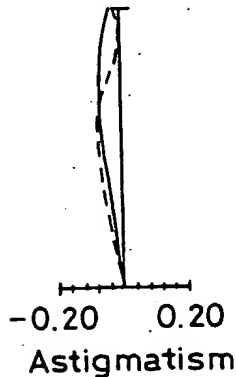


FIG. 30c
 $W = 31.7^\circ$

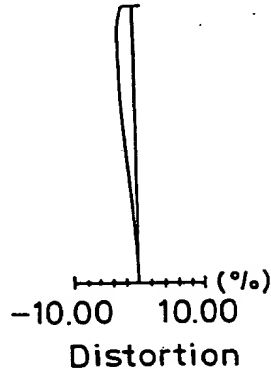
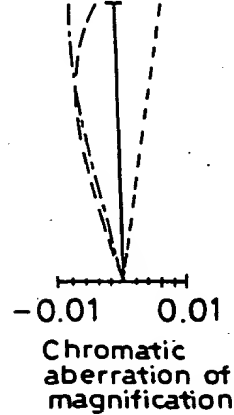
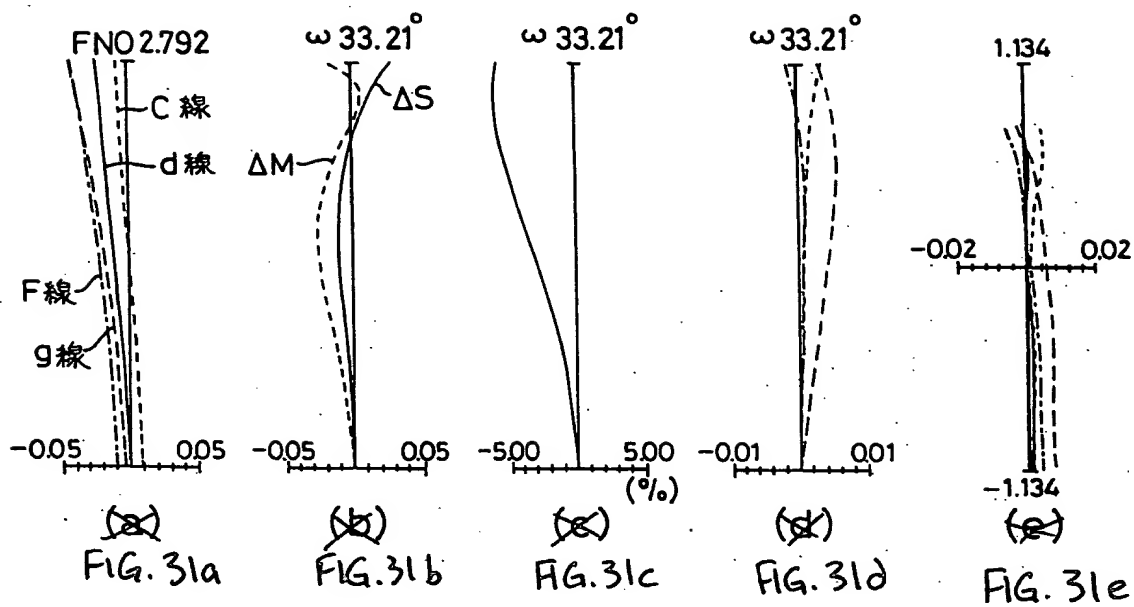


FIG. 30d
 $W = 31.7^\circ$



~~FIG. 31~~



~~FIG. 32~~

